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Network modeling of biological treatment complex of polymer production waste water

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Abstract

© 2015, Asian Social Science. All rights reserved. The article discusses technological complex of biochemical wastewater treatment (BWWT) of polymer production. Based on the review of the main methods of modeling discrete-continuous biochemist technology systems (BCTS) it substantiates the appropriateness of applying the of Petri nets (PN) theory for modeling BWWT of polymer industries. It is proposed to use a modification of Petri nets that focuses on modeling and analysis of discrete-continuous BCTS, by introducing priority transitions, deterministic time delays for transitions and places. A model in the form of a modified Petri net (MPN) is constructed. By means of SCADA TRACE MODE, software package to control BWWT technology system is designed.

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Keywords

A biochemical and technological system, Biochemical wastewater treatment of polymer production, Computer simulation, Modified Petri nets, The modeled system